

**Before the  
Federal Communications Commission**

In the Matter of	)	
	)	
Third Periodic Review of the	)	MB Docket No. 07-91
Commission's Rules and Policies	)	
Affecting the Conversion	)	
To Digital Television	)	

**COMMENTS OF THE COALITION OF ORGANIZATIONS  
FOR ACCESSIBLE TECHNOLOGY**

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**I. Introduction**

On behalf of its affiliate members, the Coalition of Organizations for Accessible Technology (COAT) offers these comments in response to the Federal Communications Commission's (FCC or Commission) Notice of Proposed

Rulemaking, initiating the Commission's Third Periodic Review of its rules and policies affecting the transition of the nation's broadcast television system from analog to digital television.<sup>2</sup>

Specifically, COAT responds to the invitation to comment on whether coordination is needed between broadcasters and multi-video programming distributors (MVPDs) to ensure a smooth DTV transition. In this regard, we describe many problems reported to us and make recommendations that the Commission should take to assist broadcasters and MVPDs in their coordination efforts to ensure the accessibility of digital television by people with disabilities. We also take this opportunity to share other, more general, concerns about the accessibility and usability of DTV programming for persons with disabilities in light of this coordination effort.

## **II. Background**

The Coalition of Organizations for Accessible Technology, or "COAT," consists of over 100 national, regional, and community-based organizations dedicated to making sure that as our nation migrates from legacy telecommunications to more versatile and innovative IP-based and other communication technologies, people with disabilities will not be left behind.<sup>3</sup> The guiding principle of COAT is to ensure the full inclusion of people with disabilities in all aspects of daily living through

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<sup>2</sup> *In the Matter of Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, Notice of Proposed Rulemaking, MB Dkt 07-91, FCC 07-70 (May 18, 2007).

<sup>3</sup> A list of COAT affiliate members supporting the COAT agenda can be found at <http://coataccess.civicspaceondemand.org/node/9>. This list is regularly updated as new affiliates join COAT.

accessible, affordable and usable communication technologies as these continue to evolve. COAT offers these comments on behalf of over 31 million individuals with hearing loss and many additional millions of individuals with cognitive or other disabilities who rely on and routinely use captioning as part of their television viewing experience, as well as the millions of individuals who are blind or who have visual impairments who use video description services to fully comprehend video programming.

Section 713 of the Communications Act requires video programming providers to make available closed captioning on 100 percent of new, nonexempt English video programming.<sup>4</sup> Exemptions are available for certain defined situations, for example, when the programming is primarily textual or primarily non-vocal music, and when compliance with the statute would result in an “undue” or “economic” burden, meaning significant difficulty or expense. Requirements also are in place for pre-rule (before January 1998) programming and Spanish language programming. In addition, all video programming distributors must pass through captions of most already-captioned programs.<sup>5</sup>

In July of 2000, the FCC adopted regulations to ensure that caption viewers would be able to enjoy the transition to DTV along with the rest of the American public. Those regulations mandated standards to enable viewers to choose among

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<sup>4</sup> 47 U.S.C. § 613.

<sup>5</sup> 47 C.F.R. § 79.1(c).

various caption sizes, fonts, foreground and background colors, characteristics, and up to six captioning services.<sup>6</sup>

Video description is the provision of verbal descriptions of on-screen visual elements that are provided during natural pauses in dialogue. This can be used by the more than 10 million American television viewers with significant vision loss, in addition to projected users such as “baby boomers” who may experience vision loss as they join the ranks of seniors over the next 25 years. Perhaps even more significant than access to entertainment, description of emergency information is needed (and still required to some extent by the FCC) to allow this sizable population to understand and appropriately respond to warnings of hazardous weather and similar emergency conditions.

### **III. The Problems**

Despite promises of a glorious captioning future, television accessibility has apparently taken a step backward rather than forward with the onset of the digital television transition. As increasing numbers of individuals are seeking to purchase digital television sets or components and systems that provide digital video programming, and as distributors begin to offer expanded digital programming – and in particular programming in the high definition (HD) format – reports of significant technical difficulties with the pass through and display of closed captioning are becoming rampant. Additionally, concerns have been raised about

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<sup>6</sup> *Closed Captioning Requirements for Digital Television Receivers*, Report and Order, ET Dkt. No. 99-254, MM Dkt. No. 95-176, FCC 00-259, 15 FCC Rcd 16788 (July 31, 2000).

the extent to which the FCC's closed captioning mandates cover HD channels that have analog counterparts, the failure of user interfaces on DTV equipment supplied by general manufacturers and MVPDs to facilitate access to closed captions, difficulties encountered when attempting to resolve concerns or complaints about DTV issues with companies or the FCC, and concerns about the lack of video description. Each of these is discussed in turn below.

### ***Technical Difficulties***

Television viewers who rely on captions to understand the content of video programming join the rest of the American public in wanting to make the transition to innovative and exciting digital television. As DTV equipment has become more affordable and available, more and more of these viewers have in fact attempted to acquire equipment that will allow them to enjoy such enhanced viewing. But time and again, these consumers have been frustrated and disappointed. Many report not being able to access captions at all after hooking up their DTV equipment – equipment that typically is comprised of separate receivers, monitors, set top boxes, and recording/playback devices. Others report disappearing, missing, garbled or otherwise unintelligible captioning on television shows that previously provided acceptable captions. These and similar problems are detailed in the attached two news articles, aptly entitled, “HDTV Messes Up Service for Deaf,” and “The Digital Revolution Has Made TV More Ubiquitous Than Ever – Except for Viewers Who Need Captioning.” These articles chronicle just a few of the problems confronting caption viewers as the transition to digital programming takes place.

A major difficulty for consumers in the DTV transition is determining the cause of these DTV-based closed captioning problems. Indeed, experience shows that any one or a combination of factors can be a culprit in creating barriers for captioning users. For example, the failure to receive captions can be the fault of the local TV station or cable TV service that has begun broadcasting or offering digital programming, the inability to pass through captions on the program distributor's (e.g., cable company's) set top box, or a failure in the equipment used to receive and display the DTV programming, such as the receiver or its connecting components. Unfortunately, regardless of the problem source, consumers are left "holding the bag" each time they confront the inability to access captions.

### ***Confusion over Scope of FCC Captioning Mandates***

In addition to these technical difficulties surrounding the DTV transition, new disputes have arisen over the extent to which MVPDs and networks now covered by the captioning rules are obligated to continue providing captions as they make the shift to HDTV or other forms of digital programming. It would appear obvious that when a standard definition (SD) analog channel, whose programming has already been captioned, converts to or creates an HD network with a programming line-up that contains a significant amount of programming that is similar to its analog channel (and therefore has been previously captioned), that the new HD network should be held to the same obligations as its analog predecessor. However, some broadcasters and cable networks have taken the position that their new HD channel is a "new network" that qualifies for an exemption from the FCC's

captioning rules. They are referring to FCC rules that exempt programs shown on new networks from having captions during the first four years of the network's operations.<sup>7</sup>

COAT disagrees strenuously with this interpretation of the FCC's captioning rules. Even when the HD channel repackages its programming so that it is slightly different than its predecessor network, or when the schedule of the repackaged network is otherwise not 100% identical to its prior SD lineup, the HD network should be subject to the captioning rules to the same extent as its analog predecessor, so long as the digital network is substantially similar to that predecessor. If this is were not the case, then consumers would find themselves having to wait an additional four years to see captioning on programming which, but for its HDTV status, would already have to be captioned.<sup>8</sup>

This "new network" interpretation of the captioning rules offered by some SD/HD networks flies not only in the face of logic; it violates Congress's intent to ensure the uninterrupted provision of closed captions with the onset of advanced technologies.<sup>9</sup> The explicit directive of the Communications Act could not be clearer

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<sup>7</sup> See at 47 C.F.R. § 79.1(d)(9).

<sup>8</sup> COAT has already received reports of this occurring when the Discovery Channel began broadcasting over Discovery HD. We are told that in 2005, the HD channel failed to caption the same programming that had previously been captioned in its analog predecessors (i.e., Discovery, Discovery Kids). When asked about this, the company asserted compliance with the FCC's rules because it had initiated its HD programming in 2002, and still had another exempt year before its "new network" status expired. Charges of other networks simultaneously broadcasting live events on SD and HD channels, but only adding captions to the SD broadcasts similarly have been reported.

<sup>9</sup> 47 U.S.C. § 330(b).

in this regard. Section 330 of the Act states: “As new video technology is developed, the Commission shall take such action as the Commission determines appropriate to ensure that closed-captioning service continues to be available to consumers.”

Even when the programming schedule of the enhanced HD network *is* substantially different than its analog counterpart – and the digital channel can legitimately be called a “new network” – at a minimum, pre-captioned programming shown on the newer network should be re-shown with those captions. We request that the FCC clarify this point as it completes the transition to DTV in this proceeding.

### ***Interface Concerns***

Caption viewers have also reported considerable problems simply trying to find the right buttons and menus to activate captions on their digital television equipment. Often the interface that controls captions is buried several layers into an on-screen menu that is difficult, if not impossible to find. Even those consumers who are able to figure out how to turn on captions on their home equipment have an often insurmountable task when trying to activate captioning in locations away from home. For example, it is with increasing frequency that we hear of deaf and hard of hearing consumers going to hotels and not being able to watch TV simply because there is no way for them to turn on captions. On one such occasion, COAT has learned, it took a hotel technician two hours to set up captions; on another, hotel staff realized that the only means of retrieving captions was by means of a single “television” remote control that the hotel owned (and did not want to leave



with any one guest). The remote controls distributed to guest rooms in that hotel were apparently for the “cable box,” not the “television,” and could not activate the captions.

In addition, the commonplace task of choosing options from on-screen menus routinely requires vision to make the selection through a “point and click” remote control or via a touch screen. However, individuals who are blind or with vision disabilities find it difficult or impossible to manipulate these menus, which are ubiquitous on DTV equipment.

Programmers, distributors and service providers of digital television programming must become far more aware of how these types of problems may adversely impact viewers of television who are consumers with hearing disabilities or with vision disabilities – and often, too, their entire family. To this end, there needs to be a mandate that requires DTV equipment to provide a conspicuous means of accessing captions on remote controls and DTV receivers themselves. Such mandate should extend to accessing video description as well, so that both captioning and video description users can effectively use the accessibility features that are added to video programming content. Put simply, it makes little sense for broadcasters to go through the time and expense of incorporating captions and video descriptions if the beneficiaries of these features will not be able to find them.

### *Barriers to Resolving Concerns*

Consumers with hearing and other disabilities have also encountered innumerable barriers when attempting to contact distributors of video programming and manufacturers of DTV equipment with concerns about and problems with closed captioning or video description. The reasons for this are many:

- Customer service representatives or technical support personnel are often unfamiliar with closed captioning and video description and simply do not understand the content of the consumers' concerns;
- Customer service representatives or technical support personnel are typically not familiar with telecommunications relay services that are commonly used by persons with hearing and speech disabilities, and hang up or otherwise disregard the phone call;
- Customer service representatives or technical support personnel may choose to not respond to e-mail requests, particularly in a timely manner. Such text-based communications are commonly used by persons with hearing disabilities.

Despite the vast array of consumer problems in accessing captions in a DTV environment, many, if not most, consumers with hearing and other disabilities remain unaware of their right to file informal complaints with the FCC, or the Commission's ability to mediate and resolve their problems. Additionally, those consumers with disabilities who may be aware of the complaint procedures often choose not to use those procedures because they find the complaint process too difficult to navigate. This is because the process for filing informal closed captioning complaints requires consumers to cite the specific FCC regulation violated, mandates that consumers first file their complaints in writing with the "distributor," and includes overly complicated timelines and response dates, as well

as requirements for detailed complaint content in order for the FCC to pursue the complaint.<sup>10</sup> As a consequence, when consumers do confront problems with their TV distributor or with the manufacturer of a DTV product or device, most of the time, in utter frustration, they give up and revert to using their “old” television receiving components. While this may be an option now, it will no longer be an option in February 2009. As the FCC’s website notes, the clock is ticking and these problems must be resolved before the time remaining for analog programming expires.

### *Concerns about Video Description*

While the FCC does not require video description, there are some networks that are providing voluntarily this form of accessibility for persons with vision disabilities. However, COAT is very concerned that, as the digital television transition takes place, the lack of attention given to this form of accessibility by DTV distributors and equipment manufacturers will seriously impede the ability of video descriptions to reach consumers when these descriptions have been added to programming. To prevent this from occurring, COAT urges the Commission to consider the recommendation offered by the 1998 Presidential advisory panel on the public interest obligations of digital broadcasters:

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<sup>10</sup> See at 47 C.F.R. § 79.1(g).

<sup>12</sup> *Charting the Digital Broadcasting Future: Final Report of the Advisory Committee on Public Interest Obligations of Digital Television Broadcasters* (December 18, 1998) at 62.

Utilization of video description as a form of providing access has been hindered by the analog standard, which only permits delivery of descriptions via the secondary audio program channel. In contrast, digital technology offers multiple audio channels, with significantly greater bandwidth, that can more easily accommodate video descriptions. We recommend that broadcasters allocate sufficient audio bandwidth for the transmission and delivery of video description in the digital age to make expanded use of this access technology technically feasible.<sup>12</sup>

With the advent of digital television, it is easier than ever for broadcasters to build into the digital structure ways to pass video description along to viewers. With this in mind, COAT urges the FCC to require distributors to ensure the technical ability to carry video description while DTV is nascent, because the failure to do so now may lead to greater technical and economic obstacles to providing video description in the future.

#### **IV. Recommendations**

In order to smooth the transition to DTV for caption viewers, and to fulfill Congress's intent to ensure the continued provision of closed captioning and access to video description as new video technology is developed, the Commission should act now on the following:

1. MVPDs and broadcasters should be directed to begin comprehensive testing of the closed captioning pass-through capabilities of their systems, and implement solutions whenever and wherever technological barriers are encountered during this testing process, well in advance of the transition date in February 2009.
2. MVPDs and broadcasters should be directed to work with DTV device and product manufacturers, including manufacturers and distributors of television receiving equipment, to evaluate and assess their components, systems, and set top

boxes for compatibility with captioning services before bringing these to market, in order to ensure there is the capability to pass through closed captions intact.

3. MVPDs should be directed to coordinate with all broadcasters that are converting their stations to HD format so that the pass through of closed captioning is ensured. This effort should include involving third-party monitoring and active efforts to resolve technical obstacles.

4. Manufacturers of DTV equipment should be directed to provide a means of accessing captions and video description on remote controls and television receivers that is conspicuous and easily accessible to caption and video description users; where menus are used to access television features, the captioning and video description interfaces that are provided should be on the first level (main) of such user controls.

5. The FCC should clarify that it is the responsibility of broadcast and other networks that have made the transition from an SD to HD channel programming to continue captioning programs on their HD networks when the content and format of those networks is substantially similar to that of their analog predecessors. The FCC should further clarify the obligation to show pre-captioned programming with captions at all times, even where the re-exhibited programming that contained those captions is shown on a new network that is substantially different from its analog predecessor.

6. The FCC should revise its complaint procedures so that consumers with hearing loss who are having difficulty accessing closed captions have a user-friendly means of seeking assistance and resolution from the FCC.

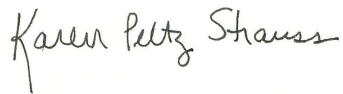
7. Broadcasters and MVPDs covered by the FCC's captioning rules should be directed to put into place customer service practices that are easily accessible and capable of responding swiftly to consumer inquiries and complaints concerning the provision of closed captions by their stations and networks. Among other things, a point of contact to handle such inquiries and complaints should be designated and identified on both the FCC's and the covered entity's websites – for example, the “front page” of a TV station's Internet site – as well as in billing inserts and promotional materials. This would alert any distributor to a local problem and provide for speedier resolutions.

8. The FCC should ensure that digital signals have sufficient capacity to make available the transmission and delivery of video description. The FCC should also direct distributors, in their coordination efforts, to ensure the proper processes for carrying video description so that it is passed through properly to the viewer.

## **V. Conclusion**

COAT thanks the FCC for the opportunity to submit these comments and offers its assistance to the Commission to ensure a smooth transition to DTV programming for all Americans with hearing loss and with other disabilities. We have described many problems representatives from COAT affiliates have reported to us and we make eight recommendations that we believe the Commission should undertake to assist broadcasters and MVPDs in their coordination efforts to ensure the accessibility to digital television by people with disabilities.

Respectfully submitted,



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On behalf of the Coalition of Organizations for Accessible Technology

## ATTACHMENT A

From the newsroom of The Sacramento Bee, Sacramento, California, Sunday, May 6, 2007

### HDTV messes up service for deaf

By Clint Swett - Bee Staff Writer



***Photo of Janel Edmiston says her family's new high-definition TV soon quit showing captions. Sacramento Bee/Paul Kitagaki Jr.***

For two months early this year, Janel Edmiston and her family enjoyed their new Panasonic high-definition TV, which occupies a big chunk of the family room wall in their Elk Grove home. But for Edmiston, who began losing her hearing at age 23, the pleasure was fleeting. In March, she said, closed captioning that came via her cable box disappeared.

"It's not that I'm addicted to TV, but I was missing out on time with my family in the evenings," Edmiston said of losing the captioning feature. "I'd go into another room (to read or fold laundry) while they were watching TV. ... Without captions it's like they are speaking Russian." Edmiston's problem is a familiar story to a growing number of the estimated 31 million hearing-impaired TV viewers nationwide.

As high-definition TV gains momentum in the United States, broadcasters, set-top box manufacturers and cable and satellite companies are struggling to provide closed captioning. After numerous complaints and long sessions on the phone with tech support for SureWest, her cable provider, the company recently gave Edmiston an updated cable box still being tested by SureWest engineers.

Though things have improved, problems remain, including last Thursday when the captions slid off the left edge of the screen. SureWest engineer Steve Keach said his company is constantly receiving updated software from its cable box provider in an effort to improve closed captioning.

"We expect the quality to get better, but like everyone else, we have our issues," he said. While most older analog sets provide captions with the touch of a remote control button or via a simple on-screen menu, it's more complicated to get closed captioning on the newest digital TVs that get their signal through cable and satellite boxes rather than antennas. That's because the signal is processed by the box and the caption settings must be matched to the resolution of the TV display.

For the deaf community, captioning is a serious issue.

"What would (a hearing person) do if (they) turned on the TV and the volume control wasn't working and there were no voices or sound accompanying the program?" asked Sheila Conlon Mentkowski, an official



with the California Department of Rehabilitation in Sacramento and chairwoman of the National Association of the Deaf's technology committee.

There appears to be plenty of blame to go around for the captioning troubles, said Larry Goldberg, director of media access at Boston public TV station WGBH and an expert on captioning.

"I'm getting reports all the time about closed-captioning problems," said Goldberg, who helped write many of the captioning regulations for the Federal Communications Commission.

"If there was one organization we could blame it would make it a lot easier. But there are at least a few different causes."

For instance, not all broadcasters properly encode their closed-caption data, even though there's a standard mandated by the FCC, Goldberg said.

In addition, not every channel provides digital closed captions 100 percent of the time. The FCC required that digital captioning be available by 2006, but granted some exemptions.

New networks have four years to implement HD captioning, and networks with revenue under \$3 million a year also are exempt.

Some long-time broadcasters however, are saying their newly launched HD channels qualify as new networks, and claim the four-year exemption, wrote Ron Bibler, a deaf financial planner in Great Falls, Mont., and an activist on the issue.

He points to NBC's Universal HD channel, which he said often doesn't provide captioning while identical programming on its sister USA Network has the captions. After complaining to NBC, Bibler said, he received a letter from the network saying Universal HD expected closed captioning by the end of 2007. Universal executives could not be reached for comment.

In addition, most high-definition cable and satellite set-top boxes control the caption settings through often obscure and confusing menus.

"I learned that ... digital captioning options must be controlled from the cable box via a hidden menu that comes with no instructions," wrote Pamela Holmes, a deaf cable customer in Madison, Wis.

In an e-mail, Holmes said it took nearly 12 hours with installers, phone support and other resources to get her closed captioning operating.

Representatives of Motorola and Scientific Atlanta, the two major makers of set-top boxes, did not respond to requests for comment on the closed captioning problem.

Further complicating things, people are now discovering that if an HDTV set is hooked to the cable box through a connection called HDMI, captions won't be displayed at all.

All of this frustrates deaf viewers, who feel they are being short-changed by the industry.

"Deaf and hard of hearing people pay the same amount for their HDTV, cable or satellite hookups and therefore should be afforded to enjoy TV as our hearing peers," wrote Sheri Farinha, chief executive of the NorCal Center on Deafness in Sacramento. "We should not have to haggle with any of the companies to get the captioning to work and/or appear on the HDTV screens."

Even as the deaf community complains about the captioning problem, the issue appears to have escaped the notice of many in the broadcast industry.

Representatives of Comcast in Sacramento, the National Cable Television Association, the Society of Cable Television Engineers, and Cable Labs, a cable technology research consortium, all said they were unaware of any problem involving closed captions on HDTV.

"To the extent it's a problem, we wouldn't know about it," said Jason Oxman, a spokesman for the Consumer Electronics Association.

At the FCC, spokesman Clyde Ensslin said his agency is aware of the issue and is "watching it closely." Still, the FCC has received only about 70 complaints regarding "accessibility issues" in the second and third quarters of 2006, compared with more than 214,000 obscenity and decency complaints during the same period.

Mentkowski, of the National Association of the Deaf, isn't sure why more closed captioning complaints haven't been filed, given that online discussion groups for the deaf are filled with postings on the issue.

"We don't sit on our couches with a piece of paper and a pen to write down the date, time, name of the program that has not had captions or has garbled captions," she wrote in an e-mail. "We usually just surf to another channel."

Goldberg of WGBH said he's confident all the issues eventually will be resolved.

"It's a matter of time and a critical mass of complaints reaching the right people," he said. "But eventually all the powers that be will deal with it."



*Now using an experimental device from her cable service, the closed captioning sometimes works properly and sometimes doesn't. Sacramento Bee/Paul Kitagaki Jr.*

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From the newsroom of The Sacramento Bee, Sacramento, California, Sunday, May 6, 2007.

News story about problem with closed captioning in regard to HDTV:

At <http://www.sacbee.com/103/story/169064.html>, last accessed May 24, 2007

# News

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June 17, 2007

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## Digital Revolution Excludes Closed Captioning

The Digital Revolution Has Made TV More Ubiquitous Than Ever –  
Except for Viewers Who Need Captioning

By [James Hibberd](#)

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Colleen Farrell is a 21-year-old college senior who's been shut out of television's digital revolution. She wants to watch her favorite shows online. She's up for downloading programs to her iPod. She would like to watch shows on her brother's high-definition set.

There's just one problem: Ms. Farrell is one of 23 million Americans who are deaf or hard of hearing and must rely on closed captioning.

In the rush to create new products and make television programming available anytime, anywhere, the need for closed captioning is being overlooked.

The major broadcast networks have launched state-of-the-art online video players -- that do not include captions.

Apple has revolutionized TV viewing by making shows available for download on iTunes -- without captions.

The television industry is spending billions to deliver spectacular high-definition signals - - but viewing captions on HD programming is a Byzantine process that has frustrated many viewers.

"With the move toward hi-def, and the explosive growth in video on the Internet, it's like we're starting all over again," said Mike Kaplan, who serves on the steering committee of the Hearing Loss Association of Los Angeles. "Since 1993, closed captions have been built into every TV set larger than 13 inches. So why in 2007, with the latest and greatest technology at our fingers, is it getting harder and harder to view captions?"

The lack of closed captioning on new media doesn't only close out deaf and hard-of-hearing viewers. According to a BBC study, 80 percent of households that use captions are watching the subtitles to learn the language or to follow a program in a noisy place.

With network ratings hitting record lows, the failure to extend closed captioning to the digital world ironically makes TV shows less accessible for some at a time when programming is more widely available than ever.

Although the Federal Communications Commission requires captions for broadcast and cable content, the rules do not cover Internet streaming or digital downloads. That makes extending closed captioning to those media more a matter of corporate responsibility than regulation.

The FCC rules do cover high-definition and video-on-demand delivery, but experts complain that, between companies not complying with regulations and a lack of consumer awareness, many viewers still feel chained to their traditional analog sets.

"The complexity of digital transitioning has made closed captions a low priority," said Larry Goldberg, director of the Media Access Group at the Boston-based public broadcast station WGBH.

Mr. Goldberg should know. He wrote an update to the Federal Communications Commission guidelines in 2000 that expanded closed-captioning rules to include HD broadcasts.

An iTunes spokesman said the service's video offerings don't include closed captioning and refused to comment about "future products or announcements."

Most networks refused to comment about their lack of online captioning beyond brief statements.

Fox said they are "actively engaged in exploring ways to leverage the closed-caption data to improve the user experience."

The CW said, "We are not doing closed captioning on our streaming and have no plans to do so at this time."

ABC, whose award-winning online player is the most-visited among the network Web sites, said captions are not currently available; the network's spokesperson was "not sure of any future plans."

CBS declined to comment.

### **Not a Cost Issue**

The sluggish network response might suggest adding captions is technologically difficult or expensive. But experts on both sides of the issue agree that's not the case.

Broadcasters have spent millions developing elaborate online games and interactive elements to engage fans, while the price of converting televised caption text for the Web is only about \$200 per episode. Once a software system is in place, that cost tends to decrease further.

Perpetually cash-strapped PBS has managed to add captions to many of its shows online.

"All the tools exist to do it. It's just a matter of time and money to make it happen," said Tom Apone, who works with Mr. Goldberg at the Media Access Group and helped develop caption software for PBS. "It's pretty straightforward and not terribly expensive."

Cable network sites, including news networks, are also behind the captioning curve. As part of a class project at Gallaudet University, Ms. Farrell surveyed news sites and found that very few provided captions on their stories (CNN.com was an occasional exception).

Among the major broadcasters, only NBC has made a public commitment to add captions. Every episode of every show will be caption-ready when the network's new Web player launches this fall, said Vivi Zigler, executive VP of digital entertainment and new media at the network.

Ms. Zigler was the only network executive contacted by *TelevisionWeek* who was willing to talk about closed captioning. She said there have been technological hurdles, but agreed the issue has been overlooked.

"If we were face-to-face, you'd see me nodding sadly -- it's 100 percent true [a lack of awareness is to blame], but it's not a good excuse," she said. "From a business management standpoint, we crawl, then walk, then run."

For high-definition broadcasts, closed captioning raises tricky technological problems.

Traditional analog broadcasts have captions embedded in the signal that are decoded by the TV set. But HD captions are part of a separate data stream decoded by a set-top box (unless they are viewed with an over-the-air antenna). To view the captions, every piece of hardware and every relay service must be compatible and in sync.

"From a deaf and hard-of-hearing consumer's point of view, this is a big problem," said Sheila Conlon-Mentkowski, a representative for the National Association of the Deaf.

Online message boards devoted to the topic are flooded by a variety of complaints -- from a cable company not properly sending a signal, to a set-top box that buries its captioning switch in service menus invisible to consumers, to captions that bleed off the sides of the screen.

Calling content operators, stations or device manufacturers tends to lead the viewer into a maze of support personnel unfamiliar with captioning issues.

"People getting HD service are running into endless cycles of finger-pointing between set manufacturers, cable and satellite companies, and individual channels," Mr. Kaplan said.

The FCC requires local broadcasters and cable and satellite operators to make captions available on HD broadcasts. New networks have a four-year window to comply, so some smaller HD channels such as Universal HD have limited captioning, even though their content is largely repurposed from traditional networks.

Shortly after *TelevisionWeek* asked the FCC about the issue, the commission issued a formal advisory alerting viewers that they may experience problems receiving captions for HD broadcasts. The advisory said to contact the FCC to report companies that violate captioning rules.

"Consumers may file complaints and the commission may take enforcement action where the rules are violated," said Cathy Seidel, chief of the FCC consumer and governmental affairs bureau.

Cable video-on-demand services are considered channels by the FCC, yet they have a spotty track record on captioning. A Comcast representative said its VOD offerings are exempt from FCC requirements, citing the four-year exemption for new channels.

That raised an issue: In the digital age, what is a channel? VOD is almost entirely repurposed content that has been on the air for years.

Comcast said each VOD brand added -- such as HBO and Discovery -- should be counted as a new channel with four years to comply.

"The captioning capability is in place and we're providing that in accordance with the regulations," said Comcast spokesman Chris Ellis. "The amount of captioned content continues to increase."

Mr. Goldberg of Media Access Group countered that the four-year exemption was never intended to give cable operators a reason to not include captions on VOD.

"This rule was intended for things like a new cable channel, like Spike TV or the Golf Channel, to give them time to get up to speed and earn some revenue," he said.

According to viewers, pockets of non-captioned content are very common on new digital services.

Rather than wait for the FCC to update its regulations yet again, Mr. Goldberg and others urged companies to take it upon themselves to make captioning a higher priority.

"The closest we get to knowing what's covered is common sense," Mr. Goldberg said. "If it smells like TV and looks like TV..."

### Captioning New TV

**Online video:** Fox, ABC, NBC, CBS and The CW do not offer captions for their video players, though NBC plans to launch a player that supports captions in the fall. PBS has captions for some online shows. CNN has captions for some news clips on its Web site.

**Downloads:** iTunes does not support captions.

**Video-on-demand:** Some VOD offerings are captioned.

**High-definition:** HD broadcasts are required to include captions, but viewers often find them difficult to access. The FCC has issued a formal advisory about the problem.

**New channels:** Some newer channels do not provide captioning, as cable networks have a four-year window to add the service.

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[http://www.tvweek.com/news/2007/06/closed\\_captioning\\_excluded\\_dig.php](http://www.tvweek.com/news/2007/06/closed_captioning_excluded_dig.php), last accessed 8/8/07